

C-A OPERATIONS PROCEDURES MANUAL

(Pulsed Power Systems Group Procedure 8.34.1)

Hand Processed Changes

| <u>HPC No.</u> | <u>Date</u> | <u>Page Nos.</u> | <u>Initials</u> |
|----------------|-------------|------------------|-----------------|
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 Collider-Accelerator Department Chairman

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Pulsed Power Systems Group Procedure 8.34.1

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Revision 02

15.1.1 Procedure for LOTO for the RHIC Injection Kicker High Voltage Charging Power Supplies

1. Purpose

The purpose of this procedure is to instruct Pulsed Power Group Technicians and CAS technicians how to perform Lockout Tagout (LOTO) for the RHIC Injection Kicker High Voltage Charging Power Supplies.

2. Responsibilities

- 2.1 Pulsed Power Group Technicians and CAS technicians are responsible for their own safety, the execution of this procedure, and the completion of the attached checklist.
- 2.2 Pulsed Power Group Technical Supervisor and CAS Technical Supervisors are responsible for work planning and verify personnel performing this task are wearing proper Personnel Protection Equipment in compliance with latest version of applicable safety regulations, standards, policies, and procedures.

3. Prerequisites

- 3.1 All personnel involved in working on any electrical system or equipment in the C-A shall be familiar with BNL ES&H Standards 1.5.0, 1.5.2, C-A OPM 1.5.3 “Procedure to Open or Close Breakers and Switches and Connecting / Disconnecting Plugs” (<http://www.agsrhichome.bnl.gov/AGS/Accel/SND/OPM/Ch01/01-05-03.PDF>), and BNL SBMS [Worker Safety and Health](https://sbms.bnl.gov/sbmsearch/subjarea/176/176_sa.cfm) Subject Area: Lockout/Tagout (LOTO) (https://sbms.bnl.gov/sbmsearch/subjarea/176/176_sa.cfm). C-A will provide on-site/work specific training to individuals in the electrical safety aspects of their job functions and assignments.
- 3.2 The target groups for this procedure are the Pulsed Power Group and Collider-Accelerator Operation support Group.
- 3.3 When personnel perform this procedure, they will fill out the checklist in [C-A-OPM-ATT 8.34.1.a](#).
- 3.4 Wear PPE in compliance with latest version of applicable safety regulations, standards, policies, and procedures.

4. Precautions

- 4.1 All personnel shall ensure their own safety by following the standards, safety regulations, and the training they receive. In general, all energy sources must be locked out and tagged. Working on or near energized sources is not permitted unless a valid working hot permit has been issued. Personnel shall utilize tools, instruments, equipment (e.g. proper connectors and proper ac line cords), etc., that are safe and proper for the job. If any part of a job appears unsafe to any individual,

it is their duty to discontinue work and inform the supervisor, manager, ESH Coordinator, or the ESHQ Division Head, of the unsafe condition.

- 4.2 The procedure may be executed as an independent procedure or as part of the shutdown LOTO process in [C-A-OPM 2.6.4](#).

5. Procedure

- 5.1 Execute checklist, [C-A-OPM-ATT 8.34.1.a](#) as required. If found any abnormal or unsafe situation, stop work, leave the area, warn affected people, and notify supervisor, MCR, and C-A management immediately. In case of emergency, follow C-A and BNL emergency procedures.

6. Documentation

- 6.1 Filled out [C-A-OPM-ATT 8.34.1.a “LOTO for RHIC Injection Kicker High Voltage Charging Power Supply Checklist”](#).

7. References

- [1] C-A OPM 1.5.3 Procedure to Open or Close Breakers and Switches and Connecting / Disconnecting Plugs
<http://www.agsrhichome.bnl.gov/AGS/Accel/SND/OPM/Ch01/01-05-03.PDF>
- [2] BNLSBMS [Worker Safety and Health](#) Subject Area: Lockout/Tagout (LOTO)
https://sbms.bnl.gov/sbmsearch/subjarea/176/176_sa.cfm

8. Attachments

- 8.1 [C-A-OPM-ATT 8.34.1.a, “LOTO for RHIC Injection Kicker High Voltage Charging Power Supply Checklist](#).